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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,643	07/10/2003	Gerald D. Pedersen	WEAT/0153.P1	3439
7590	05/12/2005		EXAMINER	
William B. Patterson MOSER, PATTERSON & SHERIDAN, LLP Suite 1500 3040 Post Oak Blvd. Houston, TX 77056			GAY, JENNIFER HAWKINS	
			ART UNIT	PAPER NUMBER
			3672	
DATE MAILED: 05/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/616,643	PEDERSEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jennifer H Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-50 is/are pending in the application.  
 4a) Of the above claim(s) 14-22,34-39 and 47-51 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13,23-33 and 40-46 is/are rejected.  
 7) Claim(s) 14-17 and 34 is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 10 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 8/1/03, 8/25/03, 1/21/05, 4/1/05

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. Claims 10-17, 30-34, and 40-46, drawn to a plug-dropping container that includes a valve with a solid radial surface (Figures 3-8).
- II. Claims 18-20, 35-37, and 47-50, drawn to a plug-dropping container that includes a valve with a plate (Figure 10).
- III. Claims 21, 22, 38, 39, and 51, drawn to a plug-dropping container that includes a flapper valve (Figure 9).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-9 and 23-29 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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2. During a telephone conversation with Walter Grollitsch on 09 May 2005 a provisional election was made with traverse to prosecute the invention of Species I, claims 10-17, 30-34, and 40-46. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-22, 35-39, and 47-51 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ball as recited in claim 4, the bomb as recited in claim 5, the valve being cylindrical as recited in claims 13, 33, and 45, and the valve being power driven as recited in claim 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because Figures 2A, 5D, 9A, 9C, 10A, and 10C include section lines that are labeled with alphanumeric characters. Section lines should only be labeled with Roman or Arabic numerals. The Brief Description of the Drawings should be corrected to correlate to the new section line labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. Figures 1, 2A, and 2B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 420, 422, 434, 436, 520, and 534. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

8. The abstract of the disclosure is objected to because the abstract includes the implied phrase "The present invention relates to". Correction is required. See MPEP § 608.01(b).

9. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

10. The disclosure is objected to because of the following informalities: the Cross-Reference application data should be updated to include the patent number of the parent application.

Appropriate correction is required.

### ***Claim Objections***

11. Claims 14-17 and 34 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims 14-17 and 34 not been further treated on the merits.

12. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 44-50, starting with the second claim 44, been renumbered claims 45-51.

### ***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 25-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is recites the limitation "the plug bottom" in line 39. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. Claims 1-4, 6-13, 23-33, and 40-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Simson (US 2003/0024701).

*Regarding claims 1, 25, 40:* Simson discloses a plug-dropping container 200 within a head member for releasing an object into a wellbore. The container includes the following features:

- A tubular housing 220.
- A tubular canister 240 disposed within and generally aligned with the housing so as to define an annulus 249 between the housing and the canister. The canister includes an inner surface.
- A channel 244 along the inner surface of the canister that is configured to receive the object 290 therein.
- A valve 250 disposed within the housing proximal the lower end of the canister. The valve includes a solid surface and a channel 264. The valve is movable between an object-retained position where the solid surface blocks the object from exiting the canister but allows fluids to flow around the valve and an object-release position where the channel of the valve is in alignment with the channel of the canister thereby allowing the object to exit the canister and travel downward through the valve and the solid surface of the valve blocks flow around the valve (paragraphs [0069]-[0072]).

*Regarding claims 2-4, 26:* The object is a dart or a ball.

*Regarding claim 6:* The tubular housing includes a top opening and a bottom opening where the housing is in fluid communication with a channel in the head member through which fluids are circulated into the wellbore.

*Regarding claims 7, 27:* The canister includes a top opening, a bottom opening (Figure 2), a bypass area 246 for placing the inner surface of the canister in fluid communication with the annulus between the housing and the canister.

*Regarding claims 8, 28:* The bypass defines at least one port 246 in the canister.

*Regarding claims 9, 29:* The bypass is further defined by a gap between the top opening of the canister and the head member 900.

*Regarding claims 10, 30, 40, 42, 43:* The solid surface of the valve defines a radial surface (Figure 7) and a truncated portion 760 so as to disrupt the radial surface around the valve channel thus providing a means for bypass flow past the valve when the valve is in its object-retained position.

*Regarding claims 11, 31:* The radial surface of the valve is rotated into close proximity with a lower opening in the canister so that it blocks release of the object when the valve is in its object-retained position.

*Regarding claims 12, 13, 32, 33, 41, 45:* The valve can be either spherical or cylindrical (paragraph [0058]).

*Regarding claim 23:* The head member is a cementing head.

*Regarding claim 24:* The container includes at least one spacer 500 disposed between the housing and the canister that would function to centralize the canister in the housing.

*Regarding claim 25:* Simson further teaches that any number of container units and canisters can be used (paragraph [0076]).

*Regarding claim 44:* The valve bypass includes at least one opening 652 though the radial surface.

*Regarding claim 46:* The container includes a stop member 625, 810 that limits the rotation of the valve to approximately 90 degrees (paragraph [0059]).

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simson in view of Giebeler et al (US 2003/0132002).

Simson discloses all of the limitations of the above claims except for using the disclosed device to drop bombs.

Giebeler et al. discloses a device for dropping elements into a wellbore. Giebeler et al. further teaches using the device to drop balls, darts, or bombs (see Abstract).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the device of Simson to drop bombs into the wellbore as taught by Giebeler et al. as well as balls or plugs as it is considered well known in the art to use the same device to drop various types of elements into a wellbore as evidenced by Giebeler et al.

### ***Double Patenting***

19. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

20. Claims 1-6, and 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 8-11, and 26 of U.S. Patent No. 6,672,384. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are merely broader recitations of the claims of U.S. Patent No. 6,672,384. The correlation between the claims is given below:

- Claim 1 – Claims 1 or 10 of U.S. Patent No. 6,672,384.
- Claim 2 – Claim 2 of U.S. Patent No. 6,672,384.
- Claim 3 – Claim 3 of U.S. Patent No. 6,672,384.
- Claim 4 – Claim 8 of U.S. Patent No. 6,672,384.
- Claim 5 – Claim 9 of U.S. Patent No. 6,672,384.
- Claim 6 – Claim 11 of U.S. Patent No. 6,672,384.
- Claim 25 – Claim 26 of U.S. Patent No. 6,672,384.

### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

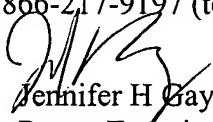
The remaining references made of record disclose various wellbore plug-dropping devices and valves.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer H. Gay  
Patent Examiner  
Art Unit 3672

JHG  
May 10, 2005